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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

KIM, CHONG R

ART UNIT PAPER NUMBER

2623

DATE MAILED: 07/07/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/627,096

Applicant(s)

IKEGAMI ET AL.

Examiner

Charles Kim

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 June 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-34 is/are pending in the application.
- 4a) Of the above claim(s) 8, 9, 11-13, 20-22, 24-26 and 29-34 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7, 10, 14-19, 23, 27 and 28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 July 2000 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4, 7.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Response to Restriction Requirement

1. Applicant's response to the restriction requirement filed on June 16, 2003 has been entered and made of record. Applicant's election without traverse of species A, claims 1-7, 10, 14-19, 23, 27, and 28 in Paper No. 8 is acknowledged. Claims 8-9, 11-13, 20-22, 24-26, 29-34 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Drawings

2. Figures 1 and 2 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1-5, 14-18, 27, and 28 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

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Claim 1 is considered indefinite because of ambiguous claim language. More specifically, the applicant claims the step of encrypting either the identification information or the additional information in lines 12-14. However, in lines 15-16, the applicant further claims the step of combining encrypted additional information and (unencrypted) identification information. The Examiner notes that there appears to be some ambiguity in regards to which information (identification or additional) can be encrypted. For example, if the identification information is encrypted and the additional information is not encrypted, there would be no antecedent basis for combining the encrypted additional information and the (unencrypted) identification information. Similar rejections are applicable to claims 14 and 27.

Referring to claim 5, the phrase “every time the identification information is added and the identification information is added to the collation information” in lines 6-9 renders the claim indefinite. There appears to be grammatical/typographical errors resulting in confusing claim language. Furthermore, the phrase “the identification information is added to the collation information” in lines 7-9 lacks antecedent basis. Similar rejection is applicable to claim 18.

Claims not mentioned specifically depend on indefinite antecedent claims.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-2, 14-15, and 27 are rejected under 35 U.S.C. 102(a) as being anticipated by Dulude et al., PCT Publication WO 98/50875 ("Dulude").

Referring to claim 1, Dulude discloses an authentication device using anatomical information comprising:

- a. an anatomical information obtaining unit (44) obtaining anatomical information (page 9, line 33 to page 10, line 2)
- b. an identification information generating unit (48) generating identification information specifying the anatomical information [page 10, lines 2-10. Dulude explains that the identification information (ID data) specifies the anatomical information with its user]
- c. an additional information generating unit (52) generating additional information (hash value) verifying the identification information (page 10, lines 17-28, and figure 4)
- d. a collation information generating unit encrypting the anatomical information (page 10, lines 11-16) and the additional information (page 10, lines 29-34), and generating collation information by combining encrypted anatomical information, encrypted additional information, and the identification information (page 10, line 35 to page 11, line 6).

Referring to claim 2, Dulude further discloses that the additional information (hash value) and anatomical information are encrypted (page 10, lines 11-16 and lines 29-34).

Referring to claims 14 and 27, see the rejection of at least claim 1 above.

Referring to claim 15, see the rejection of at least claim 2 above.

5. Claim 7 is rejected under 35 U.S.C. 102(b) as being anticipated by Pare, Jr et al., U.S. Patent No. 5,764,789 ("Pare").

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Referring to claim 7, Pare discloses an authentication device using anatomical information, comprising:

- a. an anatomical information generating unit (12) generating anatomical information based on a collected image (col. 8, lines 16-31 and figure 3)
- b. an identification information generating unit generating identification information (Hardware ID) which comprises information for specifying the anatomical information generating unit (col. 9, lines 24-29)
- c. a collation information generating unit generating collation information by combining anatomical information (biometric) and the identification information (Hardware ID) [figure 4].

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 3, 6, 10, 16, 19, 23, 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dulude et al., PCT Publication WO 98/50875 ("Dulude"), further in view of the applicant's admitted prior art ("Admission").

Referring to claim 3, Dulude fails to disclose that a collection time of anatomical information is used as the identification information. However, using the collection time of

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anatomical information as identification information was exceedingly well known in the art. For example, in lines 10-16 on page 2 of the applicant's specification, Admission states that conventional authentication systems used time information as identification information; wherein the time information specifies when the anatomical information has been obtained.

Dulude and Admission are both concerned with authentication systems utilizing anatomical information. Admission explains that time information was commonly used as identification information for improving the security of the system, thereby enhancing the authentication process (Admission, page 4). Therefore, it would have been obvious to modify the identification information of Dulude so that it includes a collection time of anatomical information, as taught by Admission, in order to provide a secure authentication device.

Referring to claim 6, Dulude discloses an authentication device using anatomical information comprising:

- a. an anatomical information generating unit (44) generating anatomical information based on a collected image (page 9, line 33 to page 10, line 2)
- b. a collation information generating unit generating collation information by combining the anatomical information and identification information, wherein the identification information specifies the anatomical information (page 10, line 35 to page 11, line 6).

Dulude fails to teach a counting unit for counting a counter value of the collection time of anatomical information. However, counting units (clocks) were exceedingly well known in the art. For example, in lines 5-6 on page 3, and figure 1 of the applicant's specification, Admission states that conventional authentication systems included a counting unit (13) built into the

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anatomical information generating unit (terminal device 1) for counting a counter value of the collection time of anatomical information.

Dulude and Admission are both concerned with authentication systems utilizing anatomical information. Admission explains that time information was commonly used as identification information for improving the security of the system by enhancing the authentication process (Admission, page 4). Therefore, it would have been obvious to modify the anatomical information generating unit of Dulude so that it includes a counting unit for counting a counter value of the collection time of anatomical information, as taught by Admission, in order to provide a secure authentication device.

Referring to claim 10, Dulude further discloses that the anatomical information and identification information are encrypted (page 10, lines 11-16).

Referring to claim 16, see the rejection of at least claim 3 above.

Referring to claim 19 and 28, see the rejection of at least claim 6 above.

Referring to claim 23, see the rejection of at least claim 10 above.

7. Claims 4-5 and 17-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dulude et al., PCT Publication WO 98/50875 ("Dulude"), further in view of the Larsson, PCT Publication WO 99/00720 ("Larsson").

Referring to claim 4, Dulude explains that the anatomical information can be communicated through a telecommunication network (page 11, lines 6-8). However, Dulude fails to teach that a new piece of identification information is added to the anatomical information every time the anatomical information passes through a different device.

Larsson teaches a system wherein authentication data is communicated through a number of different relay devices in a telecommunication network (page 9, lines 29-31 and figure 3). Larsson explains that a new piece of identification information is added to the data each time the data passes through a different relay device, in order to provide a secure communication (page 10, lines 2-6).

Dulude and Larsson are both concerned with authentication devices in a telecommunication network. Larsson provides a network for secure communication of authentication data which prevents unauthorized access, and provides the ability to detect and track down unauthorized users (Larsson, page 6, lines 4-11). Therefore, it would have been obvious to modify the system of Dulude so that a new piece of identification information is added to the anatomical information every time the anatomical information passes through a different device, as taught by Larsson, in order to enhance the authentication process by communicating the information in a secure manner.

Referring to claim 5, Dulude explains that the additional information is generated based on the identification information (page 10, lines 17-21). However, Dulude fails to explicitly state that a new piece of additional information is generated every time the (new) identification information is added.

The Examiner notes that it would have been obvious to generate a new piece of additional information every time a new piece of identification information is added. For example, if any new identification information is added to the anatomical information, the additional information would not be able to verify the newly added identification information, because the additional information was generated based on only the original identification

information (prior to the new identification information being added). Therefore, it would have been obvious to modify the system of Dulude, to generate a new piece of additional information every time a new piece of identification information is added, in order to provide the capability of utilizing the additional information to verify both the original identification information, and any new added identification information.

Referring to claim 17, see the rejection of at least claim 4 above.

Referring to claim 18, see the rejection of at least claim 5 above.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

a. Glass U.S. Patent No. 6,553,494 discloses an authentication device wherein the anatomical information can be combined with time information or device identification information.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charles Kim whose telephone number is 703-306-4038. The examiner can normally be reached on Monday thru Thursday 8:30am to 6:00pm and alternating Fridays 9:30am to 6:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amelia Au can be reached on 703-308-6604. The fax phone numbers for the

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organization where this application or proceeding is assigned are 703-872-9314 for regular communications and 703-872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-306-0377.

ex

ck

June 27, 2003

Jon Chang
Jon Chang
Primary Examiner